

VACRE opposes the proposed EV legislation at this time for a number of reasons, including:

- Installation of conduit and wiring to make new parking facilities EV-charging station installation ready is not an imminent public safety or public health issue that might justify legislative action. As discussed below, there is plenty of time to address this issue through the normal building code process rather than through the legislative process. The building code process will allow for more time to assess technological trends and demands for EV charging stations and for more thorough vetting of the impact and utility of such a proposal among the various development community and local government stakeholders.
- Preliminary data presented on August 15, 2019 by KPMG to the Secretary of Transportation's work group on the sustainability of current fuels tax revenues, on which I serve, reveals that most estimates predict a gradual adoption of EV's for personal use and that this will take place over a long period of time. KPMG preliminarily reported that most estimates predict only around 10% of new personal vehicle purchases will be EV's by 2030 and that about 46% of new personal vehicle purchases will be EV's by 2040. KPMG also reported it will be fifty to sixty years before 100% of new vehicle purchases will be EV's. The pace of EV adoption will also vary significantly between rural and urban areas, which argues against a one-size-fits-all approach. One key factor in the pace of EV adoption is the length of time people keep their cars today. Don Hall of the Virginia Automobile Dealers Association noted that cars are kept on average 12 years by consumers today, which significantly slows the pace of the total replacement of the existing gas-powered personal vehicle fleet. Given that consumers will gradually adopt EV's, requiring new parking facilities to be EV ready at this time is premature. In fact, widespread adoption of such technology could extend beyond the useful life of facilities being constructed today resulting in unnecessary increases in housing and building costs and the depletion of resources required to provide the conduit and wiring.
- Legislating the issue now would ignore the rapid pace of technological change. During the next ten to twenty years, there will likely be significant advances in the range that EV's can travel on a single charge. There will also likely be significant advances in charging technology and the availability of commercial or publicly owned dedicated charging sites, which will also influence the number and locations needed for charging. Technology changes rapidly and to legislate today a product that will not be widely used for 20 years or more will fail to account for changes in technology, such as wireless charging, that will impact the need for physical charging locations. In addition, consideration needs to be given to whether there will be new vehicle technologies, such as hydrogen power, adopted over this time period that reduce the number of EV's purchased in the future. Each of these factors will significantly influence the number of charging stations needed at commercial or multi-family sites and, therefore, the amount of spaces that might be prudent to be wired in advance for future charging station installation.
- Whether or not it will in fact be more expensive to install the wiring after original construction depends on a number of factors including the type of structure, surface lot (where retrofits may be close to original installation cost) versus structured parking (where retrofits may be more expensive), the actual number of charging stations ultimately required (which may reduce the cost of retrofits), the cost of financing installation of wiring before it is needed versus when it will be used and if installed wiring is compatible or needed to power charging technologies of the future.

- The market will continue to dictate and influence the availability of EV charging. Voluntary codes such as LEED will encourage adoption and construction of EV ready buildings. Mandatory building codes adopted over the next ten to twenty years will also influence the availability of EV-ready parking lots and structures. Local ordinances allowing for greater density and quicker land use approvals if developers voluntarily agree to meet certain criteria will also encourage construction of EV ready properties. If there is a demand, consumers will favor the purchase or rent of properties with EV capability and this will encourage developers to make their properties EV ready.

The members of VACRE appreciate the opportunity to provide comments on this issue. We look forward to continuing to work with the members of the Housing Commission, its stakeholders and Senator Surovell on this issue.

Philip F. Abraham
Director and General Counsel
The Vectre Corporation